HIGH PERFORMANCE VpCI® PACKAGING

CASE HISTORY

Corrosion Protection System for Crated Machines

DATE
March 1997

REPRESENTATIVE
J.D. Wright

CUSTOMER
Manufacturer of injection molding equipment

LOCATION
Ontario, Canada

PRODUCTS
VpCI®-111/VpCI®-126/VpCI®-132/ VpCI®-137/VpCI®-238/VpCI®-389/ VpCI®-414

PROBLEM
The manufacturer wanted to protect three main areas of their injection molding equipment. The equipment is very expensive and the company needed to deliver a perfect product, regardless of export conditions. This included the machined surfaces, electrical and electronic components, and painted or black phosphated surfaces. The equipment spent six months to one year in domestic storage prior to shipment, three to six months in export shipment and another one to six months of storage after opening by customs at the port of entry or customers before installation. The packaging did not adequately protect the equipment during the long period of shipping and storage, which resulted in equipment failure.

APPLICATION
The manufacturer used a variety of Cortec® products to ensure corrosion protection during the entire shipping/storage period:

1) A bottom sheet of VpCI®-126 film [8 mil (200 micron)] was placed on the wood skid of the crate to isolate all metal from the wood.
2) All electrical boxes and components were sprayed with VpCI®-238, and a VpCI® emitter, either 105 or 111 is placed in the box. (This method of preservation is approved by both Siemens and General Electric, their suppliers).
3) All machined surfaces were sprayed with VpCI®-389 to 3-4 mil wet (75-100 microns)/0.8-1 mil (20-25 microns) dry.
4) VpCI®-132 foam was used to cushion sharp corners or objects and placed in hard to reach exposed areas.
5) VpCI®-126 wide top sheet covered the whole machine and was mechanically attached to the bottom of the skid, making a fully enclosed package. Random stretch film wraps covered the package to reduce excess air prior to sealing.
6) Prior to installation, VpCI®-414 degreaser was used to remove the VpCI®-389 coating. It does not affect the freshly painted surfaces or the plexiglass doors on the sides of the machines.

CONCLUSION
The manufacturer has not experienced any corrosion problems for the last 3-4 years since Cortec® products have been used. This has saved the company a substantial amount of money in corrosion claims, rework and replacements. They have also eliminated the high cost of metallized foil vacuum packaging. This type of packaging is in the process of becoming standard in all of the manufacturer's locations worldwide.

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